



United States Department of the Interior



FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, NY 13045

May 6, 2015

Mr. Dave Phillips
Environmental and Wildlife Permitting Director
Apex Clean Energy, Inc.
246 East High Street
Charlottesville, VA 22902

Dear Mr. Phillips:

This letter is in regards to our meeting of March 17, 2015, to discuss the proposed Lighthouse wind energy project. The 200-megawatt project is planned for the Town of Somerset, Niagara County and Town of Yates, Orleans County, New York. Meeting attendees included you and Dan Fitzgerald of Apex Clean Energy, staff of the New York State Department of Environmental Conservation (NYSDEC), and staff of the U.S. Fish and Wildlife Service (Service). We appreciate the opportunity to discuss this project with you.

Our review and comments are being provided pursuant to the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d), Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and Migratory Bird Treaty Act (MBTA) (40 Stat. 755; 16 U.S.C. 703-712). We may provide future comments under the BGEPA, ESA, and MBTA, as well as the Clean Water Act (CWA) of 1972 (33 U.S.C. §1251 et seq.), which is administered jointly by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency in coordination with the Service under the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), as applicable.

The purpose of the meeting was to provide Apex staff with an overview of wildlife studies conducted by the Service within the western portion of the project area during the Spring of 2013. Specifically, staff from the Service's Midwest Region's Regional Office conducted acoustic and mobile marine radar studies during a portion of spring migration to gain knowledge of bird and bat movement along the south shore of Lake Ontario. This was part of a larger effort by the Service to study sites around the Great Lakes Watershed to inform the siting of wind energy projects. Data from the study are still being analyzed and the information will be summarized in a report that will be released in the near future. A similar fall migration study has not been completed, but may provide important information on wildlife use at that time of year.

The Service indicated during the meeting that the preliminary review of the radar data shows very large scale movement of wildlife, most notably birds and bats flying north toward the project area during migration. However, upon approaching Lake Ontario, many of the individuals turn east and follow the shoreline rather than crossing the lake. This west to east movement would force them to fly through the wind turbines that are proposed parallel to the shoreline. This increases their potential exposure and risk if wind turbines were built within this area. Furthermore, the data indicate that those nocturnal migrants who approach the shoreline at dawn tend to “fall out” of the sky, looking for areas where they can stop to rest and feed until migration resumes the following evening. In the case of passerines, this could be a variety of habitats such as wooded areas, wetlands, and stream corridors. However, for waterfowl this could include open land such as pastures and crop fields as well as wetlands or the lake. This behavior of landing in and near the lake shoreline may put their path of flight from higher altitudes down to ground level and back each day directly through the rotor swept zone of wind turbines constructed in the project area, also increasing the risk of collision.

To study the wildlife in the project area, Apex has prepared a plan titled *Avian and Bat Study Plan for the Proposed Lighthouse Wind Project* (Plan). This Plan includes monitoring bald eagle (*Haliaeetus leucocephalus*) movement, migrant raptor movement, breeding bird surveys, bat acoustic monitoring, threatened and endangered species habitat surveys, and winter raptor surveys. The following are our comments on the Plan.

Bald Eagles

Bald eagles are known to use the project area during spring and fall migration and also during the winter for roosting. Bald eagle surveys were started in December 2014 after consultation with the Service and NYSDEC on the study protocol, and will continue for one full year in accordance with the 2007 National Bald Eagle Management Guidelines. This document, which can be found at <http://www.fws.gov/northeast/ecologicalservices/eagle.html>, was developed to assist with project planning and to minimize impacts to bald eagles. Measures to conserve eagles and their habitat have also been provided in guidance developed by the Service (for more information see http://www.fws.gov/windenergy/eagle_guidance.html). Please note that since the surveys have started, an active bald eagle nest has been observed in the project area. We recommend you contact NYSDEC staff in their Region 9 Office (Anne Rothrock; phone number 716-372-0645) for more information on this nest. Given that a nest was recently found in the project area, additional monitoring may be needed. Following the collection of the bald eagle surveys, the Service recommends that a meeting be held to discuss the results and potential risk to this species.

Bald eagles are no longer federally-listed under the ESA; however, bald eagles, along with their foraging and winter roosting habitat, remain protected pursuant to the BGEPA. Any take¹ and/or disturbance of bald and golden eagles (*Aquila chrysaetos*) is strictly prohibited under this Act.

¹ The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead,

Migratory Raptors

A migratory raptor survey will be conducted by Apex at 12 locations from March to early December. We previously requested that in addition to the data noted in the Plan, that the altitude of flying birds be recorded during these surveys. It should be noted with this and other seasonal surveys that weather conditions can greatly affect timing and location of wildlife movement. Therefore, one survey year may not be sufficient to document the temporal and spatial variation of wildlife use in the project area and additional surveys may be required.

Breeding and Migratory Birds

For breeding bird surveys, the Plan indicates the size of the transects used, but not the number of transects. This should be added to the Plan. We recommend breeding bird surveys be completed along transects at 50 meter intervals for a period of at least 5 minutes. The transects should be established in both the project area and control areas to establish baseline conditions. These surveys should be replicated at least three times during June. If the project is built, all transects should be resurveyed to determine any potential displacement effects. It is predicted that most of the project turbines will be constructed in open fields and consequently where the transects are proposed. However, as we stated above, the forest, shrub and riparian habitats are important as well and these areas should be surveyed too.

It appears that the proposed project may affect species under the Service's jurisdiction pursuant to the MBTA. Migratory birds, such as waterfowl, passerines, and raptors are Federal trust resources and are protected by provisions of the MBTA. The Service is the primary Federal agency responsible for administering and enforcing the MBTA. This Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except when specifically authorized by the Service. The word "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." The unauthorized taking of birds is legally considered a "take" under the MBTA and is a violation of the law. Neither the MBTA nor its implementing regulations, 50 CFR Part 21, provide for permitting of "incidental take" of migratory birds that may be killed or injured by wind projects. However, we recognize that some birds may be killed at structures such as wind turbines even if all reasonable measures to avoid it are implemented. Depending on the circumstances, the Service's Office of Law Enforcement may exercise enforcement discretion.

or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Apex has proposed to use two acoustic detectors mounted on one meteorological tower in the project area to collect bat calls. One detector will be mounted at 3 meters above ground level, but the height of the other detector is not provided. No information is provided on the software to be used to screen the calls. We find that the protocol lacks sufficient details and should be revised. The bat acoustic surveys proposed for the project area should follow the 2015 Range Wide Indiana Bat Summer Survey Guidelines (April 2015) and can be found at <http://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>. Once the survey protocol has been revised, we recommend that Apex submit a copy to the NYSDEC and the Service for review.

Acoustic data was gathered by the Service in the Spring of 2013, but has not yet been provided to our office. We believe this could be important information particularly in light of the recent (April 2, 2015) listing of the Northern long-eared bat (*Myotis septentrionalis*) (NLEB) as a threatened species under the ESA. Additional information regarding NLEB can be found at (<http://www.fws.gov/midwest/endangered/mammals/nlba/index.html>). This species, which was previously documented in Niagara County, has been observed at the Iroquois National Wildlife Refuge approximately 16 miles to the south and is known to hibernate in mines approximately 22 miles south of the project area. It is important to note that several NLEBs have been killed by wind turbines in western New York in previous years. Additional coordination between Apex and the Service will be needed once studies have been completed and data analyzed on this species potential presence in the project area.

The ESA prohibits unauthorized “take”² of fish and wildlife species *listed* as endangered or threatened. The take prohibition for listed species applies to all individuals, companies, and organizations. The Service encourages all non-federal landowners and project developers to implement measures to avoid and minimize impacts to NLEB. Any unauthorized take is a violation of Section 9 of the ESA, and can be prosecuted. However, note that if take is unavoidable, a non-federal project proponent is advised to develop a habitat conservation plan (HCP) and apply for an incidental take permit from the Service, pursuant to section 10 of the ESA. The Service is available to provide technical assistance in the preparation of an HCP.

Appendix A of the Plan includes a *General Avian and Eagle Use Survey Protocol* which describes passerine and raptor plot surveys conducted during spring and fall migration. Eleven plots have been established in the project area and one outside along the lake shoreline. These surveys should be conducted twice per week during the survey period instead of the proposed weekly interval. The survey interval for each should be 5 minutes, commencing after a few minutes of quiet time to limit the influence of human disturbance.

² Section 3 of the ESA defines “Take” as, “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The term “Harm” is further defined by the FWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. “Harass” is further defined by the FWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

In conclusion, the Service strongly recommends that Apex carefully consider the potential effects of the Lighthouse wind project design, construction, and operation on wildlife, including protected bats and migratory birds. The project is proposed in an area known to have very high avian activity as evidenced by the studies completed to date. Based upon that information, the risk to wildlife from operating wind turbines could rise to severe levels. Previously, the Service has recommended that wind energy projects be constructed at least three miles from the shoreline of the Great Lakes to reduce this risk. We believe that Apex should consider the regulatory requirements of the ESA, BGEPA, and MBTA in determining whether this site constitutes an appropriate placement for this project in light of current wildlife activity at this site. We request that Apex provide the Service with any revised protocols for our review. In addition, we suggest Apex, the NYSDEC, and the Service meet to discuss any data collected in the near future.

The Service will continue to provide technical assistance to Apex on this project. If you have any questions, please contact Tim Sullivan at the New York Field Office at 607-753-9334.

Sincerely,

for Patricia Cole
David A. Stilwell
Field Supervisor

cc: Apex Clean Energy, Inc. (Dan Fitzgerald)
NYSDEC, Avon, NY (M. Wasilco)
NYSDEC, Albany, NY (B. Gary)
NYSDEC, Buffalo, NY (C. Adams)
USFWS, Minneapolis, MN (J. Gosse)